

**CALIFORNIA STATE FIRE MARSHAL**  
**TITLE 19 CALIFORNIA CODE OF REGULATIONS**  
**CHAPTER 6 FIREWORKS**

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**Title 19, California Code of Regulations  
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Fireworks**

**Article 1. Jurisdiction**

**979. Jurisdiction.** For the purposes of this chapter, the California State Fire Marshal shall be the primary enforcement authority for these regulations in all state-owned or state-occupied buildings. This authority shall extend to those premises leased by the state of California.

Authority: Health and Safety Code Section 13108(c)

Reference: Health and Safety Code Sections 13100, 13108

**Article 2. Definitions**

**980. Definitions.**

**(a) "A" Definitions.**

**(1) Aerial Shell.** A cylindrical or spherical cartridge containing a burst charge and pyrotechnic or non-pyrotechnic effects compositions, a fuse, a black powder lift charge and is fired from a mortar.

**(2) ASTM.** The American Society of Testing and Materials, a national organization publishing standards for all types of materials and products.

**(b) "B" Definitions.**

**(1) Barrage.** A rapidly fired sequence of effects.

**(2) Batten.** A strip of wood to which pyrotechnic devices are attached



for support.

**(3) Binary Low Explosive Compounds.** Special effects materials in which fuel and an oxidizer are mixed together to produce a pyrotechnic composition.

**(4) Blank Cartridge.** A cartridge constructed from either metal or plastic casing, with a center or rim fire primer filled with various amounts of pyrotechnic compositions measured by loads.

**(5) Blasting Galvanometer.** An electrical resistance measuring device designed specifically and approved for testing of electric firing circuits.

**(6) Bottle Rocket.** A pyrotechnic device containing a maximum of 20 grams of pyrotechnic composition, which rises into the air upon ignition. A stick is used for guidance and stability, and a burst of color or noise, or both, is produced at height of flight.

**(7) Break.** An individual burst from an aerial shell, producing either a visible or audible effect or both, and may consist of a single burst or multiple effects.

**(8) Bullet Effect.** The discharge of the pyrotechnic or explosive bullet hit.

**(9) Bullet Hit.** A device containing various levels and amounts of pyrotechnic composition, whose purpose is to create the illusion of a bullet impact.

**(c) "C" Definitions.**

**(1) California Candle.** Hand held heavy paper or cardboard tube emitting showers of sparks.

**(2) Comet.** A pyrotechnic device launched from a mortar that produces an ascending burning effect, is self-consuming, and may or may not contain a burst charge or stars.

**(d) "D" Definitions.**

**(1) Darts.** To move suddenly and swiftly from one place to another.

**(2) Detonator.** Any device containing a detonating charge that is used for initiating detonation in an explosive. The term includes, but is not

limited to, electric blasting caps of instantaneous and delay types, detonating cord delay connectors, and nonelectric instantaneous and delay blasting caps.

(3) **D.O.T.** DOT means the United States Department of Transportation.

(4) **Dud.** A pyrotechnic item which leaves the mortar and returns to earth without producing the intended burst or effect. See also Misfire.

**(e) "E" Definitions.**

(1) **Electric Firing.** A technique used to discharge fireworks in which an electric match or squib and a source of electric current are used to ignite fuses or lift charges.

(2) **Electric Match.** An electric device containing a pyrotechnic compound which ignites when sufficient current flows through the leads.

(3) **Experimental High Power Rocket.** Non-professional rockets which are propelled by commercially manufactured high-power solid propellant rocket motors.

(4) **Experimental High Power Rocket Motor.** A State Fire Marshal approved, commercially manufactured rocket propulsion device containing a solid propellant charge wherein all the ingredients are pre-mixed and which produces more than 160 Newton-seconds (36 lb.-seconds) but shall not exceed 10,240 Newton-seconds (2302.2 lb.-seconds) of total impulse.

**(f) "F" Definitions.**

(1) **Firecracker.** A device containing explosive pyrotechnic composition in an amount not to exceed 50 milligrams (.772 grains) in total pyrotechnic weight, in a fused container whose primary function is to produce an audible effect.

**Note:** All firecrackers are classified as "dangerous fireworks", and pyrotechnic devices similar in construction to a "firecracker" which exceed the specified weight shall be designated explosives in accordance with Health and Safety Code Section 12000.

**(2) Flash Paper.** Treated paper which is extremely sensitive to heat and creates a brief flash of fire upon ignition.

**(3) Flash Powder.** Pyrotechnic composition intended for use in firecrackers and salutes, and often used for "flash"-type effects on stage and in productions involving special effects. Flash powder produces an audible report and a flash of light when ignited. Typical flash powder compositions contain potassium chlorate or potassium perchlorate, sulfur or antimony sulfide, and powdered aluminum.

**(4) Flower Pot.** A shell (not the lifting charge) that explodes at or near the bottom of a mortar blowing a shower of stars and burning material into the air.

**(5) Fountain.** See Gerb.

**(g) "G" Definitions.**

**(1) Gerb.** A device that, when ignited, emits a shower of sparks into the air at various altitudes. (Also known as a Fountain).

**(2) Ground Spinning Device.** Also known as a Ground Spinner. A pyrotechnic device that discharges sparks as it spins across the surface upon which it is placed.

**(h) "H" Definitions.**

**(1) HDPE Mortar.** Also known as a High Density Polyethylene Mortar, is a mortar constructed of high density polyethylene which is certified and labeled as meeting one or more of the following ASTM standards, which are hereby incorporated by reference: ASTM Standard D-3350, or ASTM Standard F-714.

**(i) "I" Definitions.**

**(1) Ignitor.** An electric, chemical or mechanical device used to initiate

burning of pyrotechnic or propellant materials.

(j) **"J" Definitions.** None.

(k) **"K" Definitions.** None.

(l) **"L" Definitions.**

(1) **Lance.** A thin cardboard tube packed with a color-producing pyrotechnic composition.

(2) **License.** "License" means any nontransferable authorization granted by the State Fire Marshal to engage in any activity regulated by this part.

(3) **Licensee.** "Licensee" means any person 21 years of age or older holding a fireworks license issued pursuant to Chapter 5 (commencing with Section 12570) of the Health and Safety Code.

(4) **Loader.** A person who places shells into mortars.

(5) **Low Burst or Low Break.** The result of a shell exploding below its prescribed height.

(m) **"M" Definitions.**

(1) **Magazine Tender.** Person who distributes pyrotechnic items to the loader during the show.

(2) **Match.** A fuse made of string or thread impregnated with black powder.

(3) **Meteoric Shower.** A self-contained cardboard tube mounted on a plastic base emitting a shower of stars into the air.

(4) **Mines or Mine Bags.** A device contained within a reusable or disposable tube, where upon ignition stars, firecrackers, salutes, whistles or other devices are propelled into the air, with the tube

remaining on the ground.

**(5) Misfire.** A pyrotechnic item which fails to function as designed after initiation. Also see Dud.

**(6) Model Rocket Motor.** The same as a model rocket engine, as defined in Health and Safety Code Section 12520. Model rocket motors shall not produce more than 160 Newton-seconds of total impulse power.

**(7) Monitor.** Person responsible for watching for pyrotechnic items which do not perform properly.

**(8) Mortar.** A cylinder that is used to hold and fire public display or special effects pyrotechnic items or compositions as defined in Section 999 of this subchapter.

**(9) Mortar Box.** Also known as a Trough. A portable wooden structure used for the placement of mortars.

**(10) Mortar Rack.** A wooden rack holding closely spaced HDPE or paper mortars. Mortar racks are limited to 10 tubes per individual rack.

**(11) Multiple Break Shell.** Aerial shell which has two or more breaks.

**(12) Muzzle Burst.** The process of an aerial shell breaking or bursting just as it leaves the mortar, scattering stars and burning material.

**(n) "N" Definitions.**

**(1) N.F.P.A.** The N.F.P.A. National Fire Protection Association.

**(2) Non-metallic Mortar.** See HDPE and Paper Mortar definition.

**(o) "O" Definitions.** None.

**(p) "P" Definitions.**

**(1) Pan Type Mortar.** A shallow metal container that is used to hold and

fire special effect pyrotechnic compositions.

**(2) Paper Mortar.** A mortar constructed of spiral or convolute wound paper or chipboard.

**(3) Party Popper.** Also known by other names such as Champagne Party Poppers, Party Surprise Popper and Hot Shot Poppers, is a pyrotechnic device which contains less than 0.25 grain of pyrotechnic composition per unit load, designed to be held in the hand and when fired propels soft paper, cloth inserts or other similar fill material into the air.

**(4) Pigeons.** Also known as line rockets. Pyrotechnic items using mechanical devices to control the effect of flight or movement.

**(5) Public Display of Fireworks.** "Public display of fireworks" means an entertainment feature where the public or a private group is admitted or permitted to view the display or discharge of dangerous fireworks, as defined in Section 12505 of Health and Safety Code.

**(q) "Q" Definitions.** None.

**(r) "R" Definitions.**

**(1) Report.** A detailed written account of all events involving pyrotechnic materials, devices, and operations in which a fire, injury, or death occurs, or in which any violation of the laws or regulations takes place.

**(2) Retailer.** Any person who, at a fixed place of business, sells, transfers, or gives fireworks to a consumer or user.

**(3) Roman Candle.** A heavy paper or cardboard tube containing pellets of pyrotechnic composition which, when ignited, are expelled into the air at several-second intervals.

**(s) "S" Definitions.**

**(1) Salute.** An aerial shell as well as other pyrotechnic items whose primary effects are detonation and flash of light.

**(2) Set Piece.** Also known as ground display piece, mechanical piece. A pyrotechnic device or series of devices that while on the ground or elevated produces a visual and/or audible effect. These devices may employ fountains, roman candles, wheels, and lances.

**(3) Shunt.** A deliberate short-circuit of an electrically fired pyrotechnic device or a means contained within its firing system to protect it from accidental ignition by extraneous electricity.

**(4) Single Break Shell.** Aerial shell having one or more effects within a cylindrical or spherical casing.

**(5) Snap Cap.** Also known by other names such as, but not limited to, Snappers, Pop Pop Snappers, Fun Snaps and Bang Snaps. It is a pyrotechnic device that typically contains less than .20 grams, but shall not contain more than .25 grams of gravel impregnated with not more than one milligram of pyrotechnic composition. Each unit consists of a small roughly spherical paper parcel, approximately one-quarter (1/4) inch in diameter with a twisted paper tail. Each unit when dropped against a hard surface produces a small toy cap-like report.

Note: Studies are conducted annually by the Office of State Fire Marshal which will determine whether or not there are adverse consequences from the regulation of snap caps.

**(6) Soft Detonator.** A detonator in which the explosive or pyrotechnic material is encased in a non-metallic container.

**(7) Sparkler.** A stick or wire coated with a pyrotechnic composition that produces a shower of sparks upon ignition.

**(8) Squib.** See Electric Match, or Detonator or Soft Detonator.

**(t) "T" Definitions.**

**(1) Travel.** To move from point of ignition either vertically or horizontally.

**(2) Trough.** Also known as a Mortar Box. A portable wooden structure used for the placement of mortars.

**(u) "U" Definitions.** None.

**(v) "V" Definitions.** None.

**(w) "W" Definitions.**

**(1). Wheel Driver.** A heavy paper or cardboard tube emitting a shower of sparks from a very small orifice, similar to a propellant motor.

**(2) Within This State.** "Within this state" means all territory within the boundaries of this state.

**(x) "X" Definitions.** None.

**(y) "Y" Definitions.** None.

**(z) "Z" Definitions.** None.

Authority: Health and Safety Code Sections 12505, 12552

Reference: Health and Safety Code Sections 12505, 12552

### **Article 3. Licenses**

#### **981. General.**

(a) No person shall engage in any type of fireworks activities without having submitted an application for and having obtained a license from the State Fire Marshal in accordance with the provisions of this chapter. Licenses shall be



processed in accordance with Title 19, California Code of Regulations, Section 3.33.

**EXCEPTIONS:**

(1) Licensed Pyrotechnic Operators Basic Commercial, Restricted Commercial and First Class Rockets may employ unlicensed assistants. Unlicensed assistants shall perform only when under the direct, immediate and constant supervision of the licensee when handling fireworks and pyrotechnic compositions.

(2) Licensed special effects and theatrical pyrotechnicians may employ unlicensed assistants. Unlicensed assistants shall perform only when under the direct, immediate and constant supervision of the licensee when handling fireworks and pyrotechnic compositions.

(3) A license shall not be required for the use of or discharge of safe and sane fireworks.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

**981.1. Cause for Denial.** The use of any false or misleading statement or misrepresentation offered or used to secure any fireworks license, permit, classification, registration, or any other official fireworks document is a violation of these regulations, and shall be cause for denial of the license, permit, classification, registration or other official fireworks document.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

**981.2. Misuse or Alteration of License.**

(a) All fireworks licensees as set forth in this chapter shall be prohibited from giving or permitting any other person to use such license for any purpose whatsoever.

(b) Any license issued under this chapter found to be altered shall be confiscated by the authority examining the license. The authority confiscating the license shall notify the State Fire Marshal immediately, and shall cooperate

with the State Fire Marshal in all matters relating to an investigation of the incident.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Sections 12583, 12600

**981.3. Fees.**

(a) Every license fee required in accordance with this section shall be paid in legal tender, and if paid in a form other than cash, the instrument of payment shall be made payable to the "State Fire Marshal."

(b) Every required fee shall be paid at or mailed to the Sacramento Headquarters Office of the State Fire Marshal.

**EXCEPTION:** Retail License fees shall be paid at or mailed to the Regional Office of the State Fire Marshal nearest the location of the retail stand.

(c) The original and annual renewal fee for a license shall be for the fiscal year or portion thereof beginning July 1 and ending June 30 of the following year, except that the fee for a Retail License shall be for the period of noon on the 28th of June through noon on the 6th of July, of the same calendar year.

(d) The original and annual renewal fees shall be as follows:

(1) Manufacturer	\$1500.00
(2) Wholesaler	3000.00
(3) Importer & Exporter	4500.00
(4) Retailer	50.00
(5) Public Display (special)	350.00
(6) Public Display (limited)	200.00
(7) Public Display (general)	1500.00
(8) Pyrotechnic Operator:	
Unrestricted	350.00
Basic Commercial	75.00
Restricted Commercial	50.00
Rockets, 1st Class	50.00
Rockets, 2nd Class	50.00
Rockets, 3rd Class	50.00
Special Effects, 1st Class	250.00
Special Effects, 2nd Class	200.00

Special Effects, 3rd Class	100.00
Theatrical	200.00
Theatrical Trainee	100.00
Performer	125.00

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| (9)  | Manufacture, import, export, or wholesale, or any combination thereof; agricultural and wildlife fireworks | 500.00 |
| (10) | Manufacture, import, export, wholesale, or any combination thereof; model rocket motors                    | 500.00 |
| (11) | Registration or classification fee for each model of emergency signaling device or model rocket motor      | 50.00  |
| (12) | Party Popper/Snap Cap Distributor Permit   | 750.00 |

(e) Required fees shall be submitted jointly with the appropriate application. Such fees are non-refundable once the license has been issued.

Authority: Health and Safety Code Sections 12552 and 12631-12633  
Reference: Health and Safety Code Sections 12552 and 12630-12633

**981.4. Duplicate License.** In the event a valid license is lost or destroyed, a duplicate license will be issued upon written notice from the licensee to the State Fire Marshal and the submission of a \$25.00 fee.

Authority: Health and Safety Code Sections 12552, 12580  
Reference: Health and Safety Code Sections 12630-32

#### **981.5. License Scope.**

**(a) Model Rockets.** A Model Rocket License authorizes the manufacture, import, export or wholesale or any combination thereof.

**(b) Pyrotechnic Operator.** A Pyrotechnic Operator's license authorizes and places the responsibility for the handling, supervision and discharge of any fireworks item or pyrotechnic device and establishes that the operator is responsible for the training of his or her assistants in the safe handling, supervision, and discharge of

these items and devices, in accordance with the following:

(1) Pyrotechnic Operator--Unrestricted may conduct and take charge of all fireworks activities in connection with every kind of public fireworks display, whether commercial entertainment, experimental and other types of rockets, or special effects in motion picture, theatrical and television production.

(2) Pyrotechnic Operator--Basic Commercial may conduct and is restricted to all fireworks activities in connection with a commercial fireworks public display, including the determination that all mortars, set pieces, rocket launchers and rockets are properly installed and that the proper safety precautions have been taken to insure the safety of persons and property. Such operator shall have charge of all activities directly related to handling, preparing and firing all fireworks at the public display, including the fixing of lifting charges and quick match as needed for aerial shells.

(3) Pyrotechnic Operator--Restricted Commercial may conduct and is restricted exclusively to the use and discharge of firecrackers and the use of other exempt fireworks in religious ceremonies.

(4) Pyrotechnic Operator--Rockets First Class may conduct and is restricted to all activities in connection with research experiments, production, transportation, fuel loading and launching of all types of experimental rockets. Such operator shall also be responsible for the actions and conduct of all assistants. Operators licensed under (b) are also required to obtain a local permit from the authority having jurisdiction prior to all launches.

(5) Pyrotechnic Operator--Rockets Second Class may conduct and is restricted to all activities in connection with research experiments, production, transportation, fuel loading and launching of all types of solid fuel experimental rockets only. Such operator shall also be responsible for the actions and conduct of all assistants. Operators licensed under (b) are also required to obtain a local permit from the authority having jurisdiction prior to all launches.

(6) Pyrotechnic Operator--Rockets Third Class may purchase, transport, store, and launch high power rockets. Experimental high power rocket motors may only be imported, exported, and wholesaled by individuals or companies holding valid import, export, or wholesale licenses. Pyrotechnic Operators--Rockets Third Class may only purchase high powered rocket

motors from licensed wholesalers. Operators licensed under (b) are also required to obtain a local permit from the authority having jurisdiction prior to all launches.

(7) Pyrotechnic Operator--Special Effects First Class may conduct and is restricted to the use, preparation for transportation and the preparation and use of all types of fireworks and special effects pyrotechnics, for the sole purpose of producing a visible or audible effect where and when such use is a necessary part of motion picture, television, theatrical or operatic production, as permitted by the fire authority having jurisdiction.

(8) Pyrotechnic Operator--Special Effects Second Class may conduct and is restricted to the use of special effects, the loading of blank cartridges, colored fire, flash paper, smoke composition, the preparation and use of binary A and B Flash composition, and such other fireworks of whatever kind and class as may be permitted by the authority having jurisdiction, under a special permit in connection with television and motion picture production.

(9) Pyrotechnic Operator--Special Effects Third Class authorizes the loading of blank cartridge shells, and use of special effects when under the direct supervision and control of a Pyrotechnic Operator--Special Effects First or Second Class.

(10) Pyrotechnic Operator--Theatrical authorizes the use of special effects, blank cartridges, colored fire, flash paper, flash smoke composition, and the preparation and use of binary A and B Flash composition in stage or theatrical productions only.

(11) Pyrotechnic Operator--Theatrical Trainee authorizes the conducting of procedures permitted a Pyrotechnic Operator--Theatrical when under the direct supervision and control of a licensed Pyrotechnic--Theatrical.

(12) Pyrotechnic Operator--Performer is restricted to persons who perform before an audience, directly or indirectly, and may include magicians, comedians, still photographers, and others whose primary interest is in other than pyrotechnics. Such license is restricted to the use of blank cartridges, colored fire, flash paper, sparklers, and smoke composition in connection with the production of theatricals and operas before live audiences in theaters, opera houses, television studios, night clubs, and similar occupancies, or by the use of a still photographer.

**(c) Separate License Not Required.** A separate license shall not be required of licensed manufacturers, wholesalers, or importer-exporter to manufacture, wholesale, import or export agricultural and wildlife fireworks or model rocket engines.

**(d) Explosive Materials Not Included in Scope of License.** The license scope as defined in this section is restricted to the use of materials defined as "fireworks" (as defined in Health and Safety Code Section 12511) and in no way confers authority for the use or discharge of explosive materials defined in Health and Safety Code Sections 12000, et.seq.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Sections 12552, 12578, 12580

## **Article 4. Permits**

### **982. Local Permit, Application For .**

(a) When applying for a permit under Health and Safety Code Section 12640(e), an applicant shall submit the following information and evidence to the authority having jurisdiction:

- (1) The name of the organization sponsoring the display, together with the names and license numbers of persons actually in charge of the display.
- (2) The date and time of day the display is to be held.
- (3) The exact location planned for the display.
- (4) The size and number of all fireworks to be discharged including the number of set pieces, shells, and other items. Shells shall be designated by diameter specifying single, multiple break or salute.
- (5) The manner and place of storage of all fireworks prior to, during, and after the display.
- (6) Diagram of the grounds on which the display is to be held showing the point at which the fireworks are to be discharged, the location of all buildings, roads, and other means of transportation, the lines behind which

the audience will be restrained, the location of all nearby trees, telegraph or telephone lines, or other overhead obstruction.

(7) Proof that satisfactory worker's compensation insurance is carried for all employees in compliance with Labor Code Section 3700.

(8) If the permit is for a public display or special effects, documentary proof of conformance with Sections 12610 and 12611, Health and Safety Code.

(9) A State Fire Marshal's license for the public display of fireworks, under Health and Safety Code Sections 12575, 12576, or 12577. No permit for a public display of any type shall be granted unless a public display license general, special, or limited has been first obtained from the State Fire Marshal.

(10) The name and license number of the wholesaler who supplied all items used in the display.

(b) Permittee shall be responsible for compliance with the provisions under which a public display permit has been granted.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

## **Article 5. Qualification--Examination and Investigation**

### **984. General.**

**(a) Test and Examination.** Every applicant for a pyrotechnic operator's license shall take and pass a written examination administered by the State Fire Marshal in accordance with the provisions of this chapter. The applicant shall submit evidence attesting to the qualifications and experience required by this Article for the type of license for which application has been submitted.

(1) Pyrotechnic Operator--Unrestricted shall require a minimum amount of experience as indicated for each of the following types of licenses. Such experience shall be in the actual discharge of fireworks and pyrotechnic devices for the types of Pyrotechnic Operators indicated.

- (A) Basic Commercial 2 years
- (B) Rockets, 1st Class 2 years
- (C) Special Effects, 1st Class 2 years

Under the provisions of this section, not less than 6 years total experience is required.

(2) Pyrotechnic Operator--Basic Commercial shall require a minimum of 2 years of active work as an unlicensed assistant to either a licensed Pyrotechnic Operator--Unrestricted, or Basic Commercial. This time requirement may be reduced by 1 year through the successful completion of a State Fire Marshal approved training course or through exceptional work experience as evidenced by log entries or work records. Notwithstanding the 2 year requirement, the applicant shall have participated in the firing of not less than 8 different public displays.

(3) Pyrotechnic Operator--Special Effects First Class shall require a minimum of 2 years of active work as a Pyrotechnic Operator--Special Effects Second Class. This time requirement may be reduced by 1 year through the successful completion of a State Fire Marshal Approved training course or through exceptional work experience as evidenced by log entries or work records.

(4) Pyrotechnic Operator--Special Effects Second Class shall require a minimum of 2 years of active work as a Pyrotechnic Operator--Special Effects Third Class. This time requirement may be reduced by 1 year through the successful completion on a State Fire Marshal approved training course or through exceptional work experience as evidenced by log entries or work records.

(5) Pyrotechnic Operator--Special Effects Third Class requires no experience.

(6) Pyrotechnic Operator--Theatrical shall require a minimum of 2 years of active work as a Pyrotechnic Operator--Theatrical Trainee. This time requirement may be reduced by 1 year through the successful completion of a State Fire Marshal approved training course or through exceptional work experience as evidenced by log entries or work records.

(7) Pyrotechnic Operator--Theatrical Trainee requires no experience.



(8) Pyrotechnic Operator--Performer requires no experience.

**(b) Qualifications.** Adequate qualification for the issuance of the requested license shall be determined by the State Fire Marshal. It shall be incumbent upon the applicant to present to the State Fire Marshal evidence of such qualifications which may include a physical demonstration of knowledge and ability.

**(c) Experience.** The required experience for issuance of a pyrotechnic operator's license shall be in accordance with this section. In addition, applications shall be accompanied by the names and complete addresses of not less than five persons as reference who are not a relative, and who can attest to the applicant's experience, integrity and training. The references shall be licensed pyrotechnic operators of a class equal to or greater than the class applied for and shall have been licensed for at least one year.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Sections 12552,12580,12589, 2603,12607

**984.1. Examinations.** The written examination required for pyrotechnic operators shall consist of at least three parts, one pertaining to laws relating to fireworks, one pertaining to regulations relating to fireworks and one relating to the practices and procedures of the license scope.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Sections 12552, 12580

**984.2. Examination Process.**

(a) To satisfactorily pass the written examination, the applicant must obtain a minimum grade of seventy percent (70%) in each part.

(b) Every person taking an examination for pyrotechnic operator shall have the right to contest the validity of individual questions of such examination.

(c) Every objection as to the validity of individual questions of an examination shall be made in writing within 5 days after taking said examination. Objections shall state the reasons for each objection.

(d) The decision as to the action to be taken on the submitted objection(s) shall be

by the State Fire Marshal and such decision shall be final.

(e) The decision made by the State Fire Marshal and the action taken shall be reflected in all future examinations but shall not affect the grades established in past examinations.

(f) Any applicant failing the examination may reapply and take another examination not less than 15 days from the date of the previous examination.

(g) Applicants applying to take repeat examinations shall file a new application. An additional fee is not required in those instances where the applicant has taken a test and failed it.

(h) The State Fire Marshal may require a reexamination of any licensee. This examination may be of any type permitted by these regulations. A fee shall not be required for a reexamination.

(i) Any applicant found using any extrinsic aids during the examination shall automatically fail the examination, and shall forfeit admission to future examinations for a period of one year.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Sections 12552, 12580, 12589

**984.3. Application Period.** An original pyrotechnic operator's license shall not be issued for the month of June of any fiscal year unless the application has been received in the Office of the State Fire Marshal on or before the preceding May 15.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Sections 12552, 12580, 12589, 12595, 12597

**984.4. Investigation and Letters of Reference.** Applicants for a pyrotechnic operator's license are subject to an investigation by the State Fire Marshal. The investigation is intended to determine, but will not be limited to, compliance with state laws and regulations, and competency of applicant to perform in a safe manner. To assist in this investigation five letters of reference in conformance with Section 984(c) shall be submitted with this application. Additionally, a review of the applicant's log or journal detailing the kind of materials used, the quantity, how fired, date, time and location, and name and license number of the supervising

pyrotechnician shall be conducted.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Sections 12552, 12580, 12587, 12590, 12615

**984.5. Renewal Applications.** Application for renewal of a license shall be made by the person to whom the license was issued. In all cases, applicants for license renewal shall pass an examination as required for an original application in accordance with the provisions of this chapter every four years.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

#### **Article 6. Classification of Fireworks**

#### **986. Classification.**

(a) Fireworks or pyrotechnic devices that are to be used or sold for use in this state and found by the State Fire Marshal to come within the definition of "party popper", "safe and sane", "agricultural and wildlife", "model rocket motors", "high power rocket motors", "emergency signaling device" or "exempt" fireworks shall be classified as such by the State Fire Marshal.

##### **EXCEPTION:**

(1) Special Effects items developed and compounded on location for single time usage.

(b) The classification of an item shall not be construed as conferring classification to any similar item without the approval of the State Fire Marshal. The trade name of an item shall not be changed without notifying the State Fire Marshal 30 days prior to such change.

Authority: Health and Safety Code Sections 12552, 12553

Reference: Health and Safety Code Sections 12560-12569, 12671

**986.1 Sparklers.** Sparklers, which are defined as a stick or wire coated with a pyrotechnic composition that produces a shower of sparks upon ignition, are classified as dangerous fireworks under the authority of Health and Safety Code Section 12505(k).

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Sections 12505(k), 12552, 12560, 12561

**986.2. Test Samples.**

(a) Undischarged samples of each item of fireworks which are to be examined, classified and labeled as "Party Poppers", "Snap Caps" or "Safe and Sane" must be submitted to the State Fire Marshal for testing. The number of samples necessary shall be determined by the State Fire Marshal and in no case shall be less than ten (10).

(b) Undischarged samples of each item which is to be examined, classified, and labeled as "agricultural wildlife", emergency signaling devices", "model rocket engine", and "high-power rocket engine" shall be submitted to the State Fire Marshal for testing. The number of undischarged samples necessary for each test shall be determined by the State Fire Marshal and in no case shall be less than three (3).

Authority: Health and Safety Code Sections 12552, 12553

Reference: Health and Safety Code Sections 12560 through 12569, 12671

**986.3. Chemical Analysis.** The request for classification of all fireworks as "safe and sane" fireworks or any item as a "party popper" or "snap caps" shall be accompanied by a qualitative chemical analysis showing every chemical and substance used in the manufacture of such fireworks, "party poppers" or "snap caps". Such qualitative analysis shall be made by the manufacturer, and shall include the total pyrotechnic weight of each item.

Authority: Health and Safety Code Sections 12552, 12553

Reference: Health and Safety Code Sections 12560 through 12569, 12671

**986.4. Re-tests.** Licensees shall advise the State Fire Marshal of any change in quality, content, or construction of any fireworks article classified by the State Fire Marshal and shall resubmit such articles for re-test and classification.

Authority: Health and Safety Code Sections 12552, 12553

Reference: Health and Safety Code Sections 12560 through 12569, 12671

**986.5. Revocation.** The classification may be revoked by the State Fire Marshal if he or she finds that the material being marketed is not the same as that submitted for

classification or when such fireworks or their labeling does not conform to the provisions of this chapter.

Authority: Health and Safety Code Sections 12552, 12553

Reference: Health and Safety Code Sections 12560-12569, 12671

**986.6. Specifications for Safe and Sane Fireworks.** The provisions of this section shall apply to all handle goods, stick, dowel, spike and California candle fireworks having a stick dowel or inside diameter greater than 1/8 inch and other devices as noted. Handle goods are exempt from compliance with the provisions of subsections (a), (d) and (e) of this section if they incorporate all of the following features: (1) a soft, crushable type paper tube, (2) an inside diameter of 3/8 inch or less, (3) 3 inches or less of combustible chemical composition, and having an overall length not exceeding 12 inches without any choke or other muzzle restriction.

(a) The chemical composition tubes or cases of all stick or handle fireworks items, whether spike or dowel, except flares, shall not exceed 9 inches in length or have an inside diameter greater than 5/8 inch and shall be convolute or spiral wound of chip board or other paper having equivalent strength and shall be well glued. The above dimensions do not include the stick, dowel or tubular handles of such items.

The chemical composition tubes in all fireworks items shall be sealed in a manner that prevents leakage of the pyrotechnic composition during shipping, handling, or normal operation and shall be constructed in a manner to allow functioning without burnout or blowout.

(b) The use of any choke or other muzzle restriction in any stick or handle fireworks item, whether spike or dowel or California candle is prohibited.

(c) Compositions in all devices shall be designed and manufactured to prevent loosely compacted charges. Pyrotechnic compositions shall not discharge a flame longer than 8 inches or throw sparks further than 10 feet from the composition tube muzzle. Handle goods shall not throw sparks further than 6 feet from the composition tube muzzle.

(d) Clay base shall have a minimum finished thickness of 1/2 inch and shall be formed in place inside the tube. In no case shall the final composition charge and the clay be formed in a combined operation. All clay used as clay base shall be sufficiently moistened to insure permanent effective adhesion to the inside of the tube or case.

(e) Fireworks devices which are intended to be hand-held and are so labeled shall

incorporate a handle at least 4 inches in length. Handles shall remain firmly attached during transportation, handling and full operation of the device, or shall consist of an integral section of the device at least 4 inches below the pyrotechnic chamber. Spikes and dowels shall be inserted into the chemical composition tubes a minimum distance not less than 25% of the length of tubes 6 inches or less in length and not less than 2 inches into tubes over 6 inches long. They shall be cemented firmly in place against the clay base. There shall be no void space within the chemical composition tube. Spikes provided with fireworks devices shall protrude at least 2 inches from the base of the device and shall have a blunt tip not less than 1/8 inch in diameter or 1/8 inch square.

(f) All fuses of every type and kind of fireworks items shall be securely fixed in contact with the composition charge to insure against accidental loss. Each fuse shall be capable of either supporting the combined weight of the fireworks item plus eight ounces dead weight, or double the weight of the item without separation from the fireworks article. Fuses on all items shall burn for not less than 3 seconds but not more than 6 seconds. Fuses on all items shall be treated or coated in such a manner as to reduce the possibility of side ignition. The fuse on devices such as "ground spinners" that require a restricted orifice for proper thrust and contain less than 6 grams of pyrotechnic composition are exempt from this requirement. Fireworks items sold or offered for sale at retail which are not enclosed in sealed packages, shall have their fuses or other igniting means covered in a manner approved by the State Fire Marshal to provide reasonable protection from unintentional ignition.

(g) All pyrotechnic devices having a base shall provide stable support to maintain the item in a vertical position when firing. When bases are added to the device, they shall be firmly glued in place. The base or bottom of fireworks devices having a base or fireworks devices that operate in a standing upright position shall have the minimum horizontal dimensions or the diameter of the base equal to at least one-third (1/3) of the height of the device including any base or cap affixed thereto.

(h) The appearance of any fireworks items resembling those articles classified by statute as "dangerous fireworks" shall constitute sufficient grounds for their classifications, by the State Fire Marshal, as "dangerous fireworks." Special reference is intended, though not by way of limitation, to cherry bombs and sky rockets and other fireworks which normally explode or rise in the air during discharge.

(i) Pinwheels shall be limited to a maximum overall diameter of 15 inches, shall be

substantially constructed and all driver gerbs, firepots and other elements shall be firmly fixed to the wheel. Drivers shall be securely attached to the device so that they will not come loose in transportation, handling, and normal operation. Wheel devices intended to operate in a fixed location shall be designed in such a manner that the axle remains attached to the device during normal operation.

(j) Smoke devices shall conform to the following:

(1) Smoke devices shall be so constructed that they will neither burst nor produce external flame (excluding the fuse and first fire upon ignition).

(2) Smoke devices shall not be of such color or configuration so as to be confused with dangerous fireworks, such as firecrackers or cherry bombs.

(3) Smoke devices shall not incorporate plastic as an exterior material if the pyrotechnic composition would come in direct contact with the plastic.

Authority: Health and Safety Code Sections 12552, 12553:

Reference: Health and Safety Code Sections 12560-12569, 12671,  
16 Code of Federal Regulations, Section 1507.4

#### **986.7. Party Poppers.**

**(a) General.** Party Poppers, as defined in Section 980, may be sold at retail outlets without requirement of a state fireworks retailer license or other retail sales restrictions so long as these Party Poppers are units of a particular manufacturer and design which have been classified by the Office of State Fire Marshal.

(1) Only entities or individuals maintaining a valid Office of State Fire Marshal importer/exporter's license may import Party Poppers into California and may sell Party Poppers only to entities or individuals maintaining a valid Office of State Fire Marshal wholesaler's license.

(2) Only entities or individuals maintaining a valid Office of State Fire Marshal's wholesaler's license or Party Popper/Snap Cap Distributor permit may sell Party Poppers to a retail outlet. Entities or individuals maintaining a Party Popper/Snap Cap Distributor Permit may purchase Party Poppers only from an individual or entity maintaining a valid Office of State Fire Marshal

wholesaler's license and may sell Party Poppers only to retail outlets.

(3) Only entities or individuals maintaining either valid Office of State Fire Marshal wholesaler's or importer/exporter's license or Party Popper/Snap Cap Distributor Permit may transport , or cause to be transported for sale, party Poppers within California.

(4) All wholesaler licenses and Party Popper/Snap Cap Distributor permittees must file with the office of State Fire Marshal by the close of the month immediately following each quarter, a list of the names and addresses of all retail outlets to whom they sold Party Poppers in the preceding quarter. Retail outlets holding valid Office of State Fire Marshal retail sales licenses for the sale of Safe and Sane fireworks within the State for the period of 12:00 noon on the 28th day of June through 12:00 noon on the 6th day of July of that calendar year, as required by health and Safety Code Section 12599 need not appear on this list filed with the Office of State Fire Marshal as required by this Section.

(b) In addition to the tests required by this Section, Party Poppers shall conform to the following:

- (1) The device shall contain not more than 0.25 grains of explosive.
- (2) The device shall not contain any materials specified in Section 12505 of the Health and Safety Code.
- (3) The tube casing or body shall be constructed so as to eliminate any emission into the hand of the user.
- (4) The streamers or other fill material shall be flame retardant when tested in accordance with this section.
- (5) Every individual party popper item shall bear the classification label of the State Fire Marshal, including the manufacturer's and importer/exporter's registration number. The words "party poppers" shall appear in legible print on such label.
- (6) The body of every party popper shall have, in legible print operating instructions and warning labels as may be required by the State Fire Marshal.



(c) The testing of Party Poppers shall require the submission of a minimum of ten (10) samples. The streamers or other fill material from all of the ten (10) samples shall be arranged in a loose pile and subjected to the flame from a common paper match for not less than 5 seconds. The test material shall not continue to burn or smolder for more than 2 seconds after the match has been removed. If the streamers or other fill material fail the above tests, the device shall be rejected.

Authority: Health and Safety Code Sections 12552, 12553

Reference: Health and Safety Code Sections 12505, 12560 through 12569, 12671

#### **986.8. Snap Caps.**

- (a) General Snap Caps as defined in Section 980, may be sold at retail outlets without requirement of a state fireworks retailer license or other retail sales restrictions so long as these Snap Caps are units of a particular manufacturer and design which have been classified by the State Fire Marshal for testing and classification in accordance with this Section.

Only entities or individuals maintaining a valid Office of State Fire Marshal importer/exporter's license may import Snap Caps into California and may sell Snap Caps only to entities or individuals maintaining a valid Office of State Fire Marshal wholesaler's license.

Only entities or individuals maintaining a valid Office of State Fire Marshal wholesaler's license or Party Popper/Snap Cap Distributor permit may sell Snap Caps to a retail outlet. Entities or individuals maintaining a Party/Snap Cap Distributor Permit may purchase Snap Caps only from an individual or entity maintaining a valid Office of State Fire Marshal wholesaler's license and may sell Snap Caps only to retail outlets.

Only entities or individuals maintaining either a valid Office of State Fire Marshal wholesaler's or importer/exporter's license or Party Popper/Snap Cap Distributor Permit may transport, or cause to be transported, for sale, Snap Caps within California.

All wholesaler licensees and Party Popper/Snap Cap Distributor permittees must file with the Office of State Fire Marshal by the close of the month immediately following each quarter, a list of the names and addresses of all retail outlets to whom they sold Snap Caps in the preceding quarter. Retail

outlets holding valid Office of State Fire Marshal retail sales licenses for the sale of Safe and Sane Fireworks within the State for the period of 12:00 noon on the 28th of June through 12:00 noon on the 6th of July of that calendar year, as is required by Health and Safety Code Section 12599, need not appear on this list filed with the Office of State Fire Marshal as required by this Section.

(b) In addition to the tests required by this Section, Snap Caps shall conform to the following:

(1) Each device typically contains less than .20 grams, but shall not contain more than .25 grams of gravel impregnated with not more than one milligram of pyrotechnic composition

(2) Each device shall not contain any prohibited materials specified in Section 12505 of the Health and Safety Code.

(3) Each device shall be constructed of a paper parcel which shall be flame retardant when tested in accordance with this Section.

(4) The packaging for these devices shall bear the classification label of the State Fire Marshal, including the manufacturer's and importer/exporter's registration numbers. The words "Snap Caps/Snappers" shall appear in legible print on such label.

(5) The packaging for these devices shall have in legible print operating instructions and warning labels as may be required by the State Fire Marshal.

(c) The testing of Snap Caps shall require the submission of a minimum of ten (10) samples. The paper material from all of the ten (10) samples shall be arranged in a loose pile and subjected to the flame from a common paper match for not less than five (5) seconds. The test material shall not continue to burn or smolder for more than two (2) seconds after the match as been removed. If the paper material fails the above test, the device shall be rejected.

**986.9. Similar Devices.** A firecracker, as defined in Section 980(f)1, which exceeds 50 milligrams (.772 grains) in net pyrotechnic composition weight shall be classified as explosives in accordance with Health and Safety Code Section 12000.

Authority: Health and Safety Code Sections 12552, 12553

Reference: Health and Safety Code Sections 12505(b) and (k), 12511, 12540, 12560

## **Article 7. Seal of Registration and Labeling**

### **987. Seal of Registration, Description.**

(a) The State Fire Marshal's Seal of Registration required by this chapter shall conform to the provisions of this article. The Seal of Registration shall be applied to all classified fireworks and pyrotechnic devices by a licensed manufacturer, importer, exporter or wholesaler, and shall indicate the classification assigned by the State Fire Marshal or any State Fire Marshal approved laboratory.

(b) The licensee registration number shall appear in the boxes below the seal as illustrated in this article.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Sections 12567, 12568

**987.1. Unlawful Use.** No person or concern shall produce, reproduce or use the Seal of Registration in any manner or for any purpose except as provided in this chapter.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Sections 12567, 12568

### **987.2. Permissive Use.**

(a) Licensed manufacturers, importers, exporters, or wholesalers may, after review by the State Fire Marshal, use the Seal of Registration bearing their license registration number for any of the following:

- (1) Printed matter including advertising and copy for publication.
- (2) Letterhead, personal cards and similar stationery.
- (3) Stencils for any of the foregoing.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Sections 12502, 12618

**987.3. Reproduction.** No person shall reproduce the fireworks Seal of Registration

unless the seal reproduction conforms to the approved copy as issued at the time the license and registration number is granted. No alteration shall be made to the original or copy, or to any reproduction of the Seal of Registration unless approved by the State Fire Marshal.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Sections 12502, 12618

**987.4. Registration Numbers.** Before reproduction of the Seal of Registration, there shall be inserted in the box at the bottom of the reproduction, the registration number assigned by the State Fire Marshal to designate the category of the licensee. The category shall be designated by the capital letter proceeding the registration number as follows: "M" for manufacturing, "I/E" for importer/exporter, "W" for wholesaler. The designation for model rockets and signaling devices shall be as follows: "MR" for model rockets, "HPR" for high-power rocket motors, "L" for land signaling devices, "S" for sea signaling devices and "A" for air signaling devices. Signaling devices intended for more than one function shall use all of the appropriate letters.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Sections 12502, 12618

**987.5. Cease Use Order.** No person or concern shall continue use of the Seal of Registration in any manner or for any purpose after receipt of a notice in writing from the State Fire Marshal to discontinue such use.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Sections 12502, 12618

**987.6. State Fire Marshal's Seal of Registration.** The Seal of Registration shall appear in a format illustrated by the following samples below:

### **SAMPLES ABOVE, INCLUDING CLASSIFICATION**

1. Enter one of the appropriate classification titles above the seal (see preceding samples) as listed below:

- (a) Dangerous
- (b) Safe and Sane
- (c) Agricultural/ Wildlife
- (d) Model Rocket Motor
- (e) Emergency Signaling Device (L), (S), or (A)
- (f) Exempt
- (g) Party Popper
- (h) High Power Rocket Motor
- (i) Snap Caps/Snappers

2. Enter the California State Fire Marshal's manufacturer's registration number in the box at the bottom of the seal. The seal that must appear on all Party Poppers and the seal that must appear on all packaging for all Snap Caps must also include the Office of State Fire Marshal importer/exporter's registration number.

On or before May 15 of the first year an importer intends to distribute in California which ever come later an importer of Safe and Sane fireworks shall be required to file with the office of State Fire Marshal in Sacramento, a notarized list of all Safe and Sane Firework devices which: (1) they have previously submitted for testing and which have been classified as Safe and Sane by the office of State Fire Marshal; and (2) indicate by placing an asterisk(\*) before the name of each Safe and Sane firework device they intend to distribute in California for retail sale between June 28th and July 6th of that year.

On or before May 15 of each year thereafter, each importer shall be required to file with the Office of State Fire Marshal in Sacramento, a notarized list of all Safe and Sane firework devices they intend to distribute in California for retail sales between June 28th and July 6th of that year including all new Safe and Sane firework devices which have been submitted for testing and which have been classified as Safe and Sane by the Office of State Fire Marshal since that importer filed its first list with the Office of State Fire Marshal in accordance with this Section.

These lists must include the name and address of the importer and the importer/exporter's registration number. The devices on these list must be segregated by type of device [i.e., cone fountains, base fountains, wheels, smoke items, ground spinners, hand-held items, and other devices which have been classified as Safe and Sane by the Office of State Fire Marshal]. These firework devices must be listed by the name as it appears on each item and within each firework device category, these items must be segregated into two subcategories: (1) those items to which this importer has exclusive trademark and or distribution rights: and (2) those items to which this importer does not have exclusive trademark and/or distribution rights.

On or by June 20 of each year, the office of State Fire Marshal shall distribute a master list or compilation of all said individual lists, segregated by importer, to all members of the fire service in California. This list shall also include a listing of snap cap and party popper devices which have been submitted for testing and classified as a "Snap Cap" or "Party Popper" by the Office of State Fire Marshal. This listing of snap caps and party poppers must include the name and address of the importer and the importer/exporter's registration number.

On or before June 1 of each year the Office of State Fire Marshal shall supply each importer who submitted an individual list, a draft copy of how that importer's list will appear on the forthcoming master list. That importer shall then have ten (10) business days from it receipt of this draft list to review approve and or request any corrections in its listing. Any request for corrections must be submitted along with appropriate documentation to the Office of State Fire Marshal in Sacramento.

The failure of an importer to timely file its individual list and/or to file a timely request for substantiated corrections to the draft copy of how that importer's list will appear on the master list, as required by this Section shall subject any item which does not appear on the office of State Fire Marshal's master list to immediate seizure by any law enforcement or fire service entity in California at any location where these devices are being offered for retail sale.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

## **988. Labeling, General Provisions.**

(a) All fireworks or pyrotechnic devices classified by the State Fire Marshal, in

addition to bearing the State Fire Marshal Seal of Registration, shall be labeled in accordance with the provisions of this article. Such labeling may be by stamp, stencil or printing or by a firmly attached printed adhesive label. The entire label shall appear in legible type.

**EXCEPTIONS:**

(1) Special Effects items developed and compounded on location for single time usage.

(2) Set pieces used for public display.

(3) Any device that is too small for practical single-item labeling such that it would render the label illegible, as determined by the State Fire Marshal.

Authority: Health and Safety Code Sections 12552, 12553

Reference: Health and Safety Code Sections 12560-12569

**988.1. Labeling of Dangerous Fireworks.** All dangerous fireworks, in addition to bearing the State Fire Marshal's Seal of Registration showing the classification and registration number as required in this article, shall bear a warning label with the wording: "Warning: Do Not Hold in Hand".

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Sections 12552, 12560

**988.2. Labeling of Agricultural and Wildlife Fireworks, Model Rocket Motors, High Power Rocket Motors, and Emergency Signaling Devices.** All agricultural and wildlife fireworks, model rocket motors, High power rocket motors and emergency signaling devices offered for sale, sold or used in this state shall bear , in addition to the seal, classification, and registration number required in this article, a warning label indicating to the user where and how the item is to be used and necessary safety precautions to be taken.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Sections 12552, 12560

**988.3. Instruction Labeling. Safe and Sane Fireworks.**

(a) The following fireworks classified as "safe and sane" shall be labeled as indicated herein. Any "safe and sane" fireworks device not required to have a specific label as indicated below shall carry a legible warning label clearly indicating to the user where and how the item is to be used and necessary safety

precautions to be observed. The use of the word "close" is optional.

(1) Fountains, Spike Fountains, and Whistles.

**WARNING (OR CAUTION)**  
**EMITS SHOWERS OF SPARKS**  
Do not hold in hand  
Use only under close adult supervision  
For outdoor use only  
Place on level surface  
Strike firmly in ground in an upright position (Spike items only)  
Light fuse and get away

(2) Handle Fountains, California Candles

**WARNING (OR CAUTION)**  
**EMITS SHOWERS OF SPARKS**  
Use only under close adult supervision  
For outdoor use only  
Hold in hand at bottom of tube or handle  
Point away from body so that neither end points toward body  
or another person

(3) Ground Spinners or Ground Spinning Devices

**WARNING (OR CAUTION) - SPINS ON GROUND**  
**DO NOT HOLD IN HAND**  
**EMITS SHOWERS OF SPARKS** (either on side, front, back, top  
or bottom panel)  
Use only under close adult supervision  
For outdoor use only  
Place on hard, flat, smooth and level surface  
light fuse and get away

(4) Wheels-Vertical

**WARNING (OR CAUTION)**  
**EMITS SHOWERS OF SPARKS**  
**DO NOT HOLD IN HAND**  
Use only under close adult supervision  
For outdoor use only



**Attach securely by means of a nail through the hole  
Light fuse and get away**

(5) Wheels- Horizontal

**WARNING (OR CAUTION):  
EMITS SHOWER OF SPARKS  
Use only under close adult supervision  
For outdoor use only  
Attach string to object so that item hangs freely  
Do not hold in hand  
Light fuse and get away**

(6) Toy smoke devices and flitter devices

**WARNING (OR CAUTION)  
FLAMMABLE (or EMITS SHOWERS OF SPARKS,  
if more descriptive)  
Use only under (close) adult supervision  
For outdoor use only  
Do not hold in hand  
Light fuse and get away**

Authority: Health and Safety Code Sections 12552, 12553

Reference: Health and Safety Code Sections 12562, 12567, 12568

## **Article 8. Storage**

**989. General.** All magazines shall meet the requirements as set forth in the Code of Federal Regulations, Title 27, Part 55, Subpart K (Storage).

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Sections 12640, 12671, 12673,  
12674, 12679, 12722

### **989.1. Storage, General Provisions.**

(a) All fireworks, pyrotechnic compositions and pyrotechnic devices shall be kept in a locked magazine and in a manner approved by the authority having jurisdiction unless they are:

(1) In the process of being manufactured;

(2) In the process of being used; or

(3) Being transported to a place of storage or use by a licensee, in accordance with the Code of Federal Regulations, Title 49, Part 173, Subpart C, and Title 13 Chapter 6, Article 3 of the California Code of Regulations.

(b) Class C Common Fireworks and those devices designated as "safe and sane" Fireworks shall be stored in a manner consistent with the Code of Federal Regulations, Title 49, Section 173.88.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

**989.2. Access Roads and Signs.** All magazine storage sites shall have access roads suitable for use by fire apparatus posted with the following warning sign or other sign approved by the authority having jurisdiction:

**DANGER  
NEVER FIGHT EXPLOSIVES FIRES  
EXPLOSIVES ARE STORED ON THIS SITE  
CALL \_\_\_\_\_**

The sign shall be weather-resistant with a reflective surface and lettering at least two (2) inches high.

Authority: Health and Safety Code Sections 12081, 12101, 12552

Reference: Health and Safety Code Sections 12081, 12101, 12552

**989.3 Activities and Devices Prohibited.** Smoking, matches, flame-producing devices, open flames, and firearms shall not be permitted inside or within fifty (50) feet of magazines.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

**989.4. Magazines in Dwelling Prohibited.** No loaded indoor storage magazine shall be located in a residence or dwelling.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552,

## **Article 9. Shipping and Transportation**

### **990. Transportation of Fireworks.**

- (a) Only fireworks and pyrotechnic devices classified by and bearing the Seal of Registration of the State Fire Marshal shall be transported within this state.

#### **EXCEPTIONS:**

1. Unclassified fireworks being transported to the State Fire Marshal for classification.
2. Unclassified fireworks being transported for verified out-of- state delivery.
3. Fireworks being imported and moving directly from the port of importation to the facilities of the licensed importer for purposes of application for the Seal of Registration for the State Fire Marshal.

- (b) All fireworks and pyrotechnic devices being transported in this state, whether classified or unclassified, shall be packaged and transported in accordance with the Code of Federal Regulations, Title 49 Part 173, Subpart C, or with Health and Safety Code Sections 12650-12654.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Sections 12650-12654

**990.1. General Safety.** Every vehicle transporting fireworks or pyrotechnic devices shall comply with Sections 27903, 31610, and 31616 of the Vehicle Code of the State of California.

## **Article 10. Reports**

**990.2. Filing Reports.** Import/export licensees shall file written reports with the State Fire Marshal involving the importation of fireworks, in accordance with Health and Safety Code Section 12619 and 12620.

(1) Prior to importing fireworks, the licensee shall file a report with the State Fire Marshal. Reports shall indicate the name and address of the manufacturer and of the shipper, the type and kind of fireworks being imported, the quantity of each type and kind of fireworks, the estimated arrival time of shipment, the name of the carrier, and the load number or other identification carton marks.

(2) Upon arrival or prior thereto, the State Fire Marshal shall be notified as to contemplated disposition of fireworks. Contemplated storage, classification, and reshipment plans shall be included in this report.

**EXCEPTION:** Import/export licensees shall not be required to file reports as outlined in this section for pyrotechnic devices and materials used solely for special effects.

Authority: Health and Safety Code Sections 12552, 12620

Reference: Health and Safety Code Sections 12619, 12620

### **Article 13. General Safety Requirements.**

**991. Safety Inspection.** Retail fireworks stands and sales areas are subject to inspection by the authority having jurisdiction. All areas where fireworks, pyrotechnic compositions or devices are used, stored or discharged shall be free from any condition which increases, or may cause an increase of, the hazard or menace of fire or explosion to a greater degree than customarily recognized as normal by persons in the public service of preventing, suppressing or extinguishing fire, or which may become the cause of any obstruction, delay or hindrance to the prevention, suppression or extinguishment of fire.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12682

**991.1. Disposition Unsold Stock.** All retail fireworks licensees shall return unsold fireworks stocks to the wholesaler from whom they were purchased. The retail licensee may store unsold stock in a place and manner approved by the fire authority having jurisdiction until stock is returned to the wholesaler. Such return of stock shall

be accomplished no later than the thirty-first of July of each year.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

**991.2. Personnel.** The employer or permittee shall be responsible for instructing his or her personnel who handle fireworks, pyrotechnic compositions or devices in any capacity, in the hazards of and safety procedures relating to fireworks, pyrotechnic compositions or devices as contained in this Chapter.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

**991.3. Smoking, Storage and Handling Facilities.** Smoking shall be prohibited and "No Smoking" signs posted in all portions of the premises or locations where fireworks, pyrotechnic compositions, or devices are stored, or handled.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

**991.4. Smoking, Sales Facilities.** Smoking shall be prohibited and signs bearing the words "No Smoking" shall be posted on and in every building, mobile facility, or structure used for the sale of fireworks. Signs shall be positioned at the entrance to and inside such buildings, mobile facilities, or structures and at such other locations as designated by the authority having jurisdiction. Lettering shall be red in color on a white background. Letters shall be at least 3 inches in height with a stroke of at least 1/2 inch.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

**991.5. Prohibited Substances.** Intoxicating liquids, narcotics, and controlled substances are prohibited within the area of the firing site as determined by the authority having jurisdiction, and shall not be used by any person handling fireworks or special effects at any time during transportation, set-up, firing or removal.

**EXCEPTION:** Prescription drugs not impairing the motor functions and/or judgment of the persons affected by this section. Drugs must be taken as directed and specifically prescribed for the individual to be covered by this exception.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

## **Article 13.5. Electrical Firing Circuits**

**992. Electric Firing Circuits, General.** Connecting any electric firing circuit to any power supply, is prohibited until all special effects devices, fireworks, and pyrotechnics in the sequence are connected to firing leads and the firing area is clear of all unauthorized personnel.

**EXCEPTION:** Circuit testing as described in Section 992.3.

Authority: Health and Safety Code Sections 12552, 12553

Reference: Health and Safety Code Sections 12532, 12552

**992.1. Power Sources.** Power sources for firing special effects devices, fireworks, and pyrotechnics shall be restricted to batteries or individually isolated, ungrounded generators used for firing purposes only. Commercial or house power may be used provided the firing system is electrically isolated from the commercial or house power through the use of such items as isolation transformers. Under no condition may commercial or house power be used directly for firing purposes.

Authority: Health and Safety Code Sections 12552, 12553

Reference: Health and Safety Code Sections 12532, 12552

**992.2. Firing Systems Safeguards.** All firing systems, including battery and power circuit types, shall be designed to insure against accidental firing by providing a shunt or other control method in which no firing power may be applied to any firing circuits unless the operator intentionally enables or arms the firing system before applying firing power.

Authority: Health and Safety Code Sections 12552, 12553

Reference: Health and Safety Code Sections 12532, 12552

**992.3. Circuit Tests.** All electrically fired pyrotechnic circuits shall be tested with a galvanometer or other test device in which the test current is not capable of firing the pyrotechnic device being tested.

Authority: Health and Safety Code Sections 12552, 12553

Reference: Health and Safety Code Sections 12532, 12552

**992.4. Sight Firing.** Special effects devices and pyrotechnics shall not be fired unless the area involved with the firing is in the continuously unobstructed full view of the pyrotechnic operator or his/her assistant at the time of firing.

Authority: Health and Safety Code Sections 12552, 12553  
Reference: Health and Safety Code Sections 12532, 12552

#### **Article 14. Special Effects**

**992.5. Scope.** This article shall govern all "Special Effects Devices/ Materials" including those materials which have been classified and described by the regulations of the Department Of Transportation, Title 49, Parts 172, 173, and 177 as Special Fireworks Class B Explosives and Common Fireworks Class C Explosives and such additional items as listed in Table 14A.

Authority: Health and Safety Code Section 12552  
Reference: Health and Safety Code Sections 12552, 12553, 12560, 12651

**992.6. Responsibility.** The company representative shall provide to the authority having jurisdiction the name and license number of the special effects operator who shall have the authority, responsibility and be in charge of handling all Special Effects Materials. The company representative shall also allocate sufficient time to the Special Effects Pyrotechnic Operator to prepare for the transportation, packing, storing, securing daily, discharging, disposing of, or otherwise handling of fireworks, pyrotechnic devices, or materials in a safe manner. Upon completion of firing, no unauthorized person shall be permitted access to the firing area until the licensed pyrotechnic operator has determined the area to be safe and secure.

Authority: Health and Safety Code Section 12552  
Reference: Health and Safety Code Sections 12552, 12583, 12600

**992.7. Orientation Meeting.** Prior to the activity, a discussion of the events planned and all aspects and ramifications concerning safety issues as they relate to the safe use of fireworks, pyrotechnic devices and materials shall be held among all appropriate parties, as determined by the authority having jurisdiction.

Authority: Health and Safety Code Section 12552  
Reference: Health and Safety Code Section 12552

**992.8. Special Effects Materials.**

(a) Materials described in this chapter as Special Effects Materials can be used as special effects. Other hazardous materials may be used when so authorized by the authority having jurisdiction.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code, Sections 12532, 12578, 12603

#### **992.9. Storage and Working Supplies.**

(a) Special Effects Materials storage facilities shall be used exclusively for the storage of Special Effects Materials. Storage facilities shall not be used for the assembling, compounding, or manufacture of Special Effects Materials or any other item of fireworks. Magazines shall be kept locked at all times except when supplies are being withdrawn or replenished. Special Effects Materials shall be stored in accordance with the Code of Federal Regulations, Title 27, Part 55, Subpart K.

Authority: Health and Safety Code Sections 12552, 12553

Reference: Health and Safety Code Sections 12532, 12578, 12603

#### **992.10. Quantities.**

(a) The quantities of Special Effects Materials removed from magazines shall be limited to the amount necessary for immediate use. Under no condition shall any surplus or excess be permitted to remain outside a magazine, unless under the direct supervision of a licensed pyrotechnic operator.

Authority: Health and Safety Code Sections 12552, 12553

Reference: Health and Safety Code Section 12552

**992.11. Equipment.** All tools, scoops and devices used in loading and handling Special Effects Materials shall be made of non-sparking materials.

Authority: Health and Safety Code Sections 12552, 12553

Reference: Health and Safety Code Section 12552

**992.12. Mixing.** No person shall mix any Special Effects Material except a licensed manufacturer or a licensed Special Effects Pyrotechnic Operator--First Class. All



mixing, assembling, or compounding when done by other than a licensed manufacturer shall be conducted in accordance with the applicable provisions of this chapter and with approval of the authority having jurisdiction.

**EXCEPTION:** Binary A & B Flash composition pre-packaged by a licensed manufacturer may be mixed and utilized according to manufacturer's instructions by a Pyrotechnic Operator Special Effects--Second Class, or Pyrotechnic Operator, Theatrical.

Authority: Health and Safety Code Section 12552  
Reference: Health and Safety Code Section 12552

**992.13. Special Effects Water Locations.** All special effects devices and explosive charges set in or on the surface of water, either salt or fresh, or any other liquid, shall be fired by a separate, individual, ungrounded, and uncommon two-wire circuit.

Authority: Health and Safety Code Sections 12552, 12553  
Reference: Health and Safety Code Section 12552

**992.14. Special Effects Not Allowed To Be Carried In Wearing Apparel.** No Special Effects Materials other than blank cartridges may be carried within the wearing apparel of a person. This shall not apply to actors in portraying a scene in a theatrical, television, or film production.

Authority: Health and Safety Code Sections 12552, 12553  
Reference: Health and Safety Code Section 12552

**992.15. Special Effect Packaging.** All Special Effects Materials shall be packaged in accordance with Department of Transportation standards as contained in Title 49 of the Code of Federal Regulations, Parts 172, 173, and 177, and shall remain in the prescribed containers until used or placed in a magazine.

Authority: Health and Safety Code Sections 12552, 12553  
Reference: Health and Safety Code Section 12552

**992.16. Special Effects Mortars.** Mortars and other items used to hold special effects, pyrotechnic or explosive materials during discharge shall be made of a material having a thickness proportional to the strength of the explosive or pyrotechnic material being used, and in every case sufficient to prevent distortion in service. Tubular mortars for firing aerial pyrotechnic and fireworks shells shall conform to the requirements of article 15 of this chapter.

Authority: Health and Safety Code Sections 12552, 12553  
Reference: Health and Safety Code Section 12552

**992.17. Flash Powder Mortars.** The use of special effects flash powder mortars consisting of converted switch boxes, sockets, or similar components is prohibited.

Authority: Health and Safety Code Sections 12552, 12553  
Reference: Health and Safety Code Section 12552

**992.18. Special Effects Reports.**

(a) Verbal reports shall be made to the State Fire Marshal within 24 hours after a firing under this article when either of the following events occur:

- (1) Injury or death to the public or the crew as a result of the firing.
- 2) Fires requiring emergency action or response.

(b) Within ten (10) working days following an incident giving rise to a verbal report, the licensed pyrotechnician in charge of the activity shall submit a complete, accurate and factual report directly to the State Fire Marshal on the episode.

Authority: Health and Safety Code Sections 12552, 12553  
Reference: Health and Safety Code Section 12552

**TABLE 14A**

**Special Effects Materials**

The following materials, when used in the motion picture/television/theatrical industry by licensed special effects pyrotechnicians and when permitted by the authority having jurisdiction, are to be regulated under this chapter as fireworks, pyrotechnic

materials and devices and not as explosives under Health and Safety Code Section 12000.

#### BULK POWDER COMPOSITIONS AND DEVICES

Black Powder  
Smokeless Powder  
Smoke Flash Compositions  
Common Photo Flash Compositions  
Illuminating Compositions  
Atomized Flash Compositions  
Two Component Flash Powder  
Flash Paper  
Flash Cotton  
Flash Powder  
Simulated Phosphorus  
Sparking Granules  
Lifters

#### SMOKE POWDER COMPOSITION AND DEVICES

All Colors  
Smoke Compositions  
Smoke Pellets  
Smoke Granules  
Smoke Candles  
Smoke Cookies  
Smoke Grenade  
Smoke Pots  
Smoke Signals

#### MATCHES AND FUSES

Quick Match  
Black Match  
Arcing Match  
Silver Match

Cannon Fuse  
Safety Fuse  
Thermalite  
Instantaneous Fuse  
Igniter Cord  
Thermite Fuse

#### SQUIBS AND DETONATORS

Bullet Hits  
Electric Match  
Soft Detonators  
Squibs  
Detonators  
Igniters

#### FIREWORKS

Common Class C Safe and Sane Fireworks  
Common Class C Dangerous Fireworks  
Special Class B Fireworks

#### OTHER MATERIALS

Primacord or Detonating Cord  
Exploding Bolts and Cable Cutters  
Non Electric Fuse  
Shape Charges  
Trick Noise Makers

Authority: Health and Safety Code Section 12552  
Reference: Health and Safety Code Section 12552

### **Article 15. Public Display**

#### **993. Insurance.**

(a) Any person, firm, or corporation applying for a public display license shall

furnish to the State Fire Marshal a policy of public liability and property damage

- (b) insurance. The policy may have a deductible not to exceed fifteen thousand dollars (\$15,000). The policy shall provide limits of bodily injury for each occurrence annually and with a limit of property damage liability of not less than and property damage liability of not less than one million dollars (\$1,000,000.00) combined single limits for each occurrence annually as payment for damages to persons or property which may result from or be caused by such public display of fireworks, or any negligence on the part of the licensee or his or its agents, servants, employees, or subcontractors presenting such public display.

**EXCEPTION:** A deductible in excess of fifteen thousand dollars (\$15,000) may be permitted provided a security deposit, such as, but not limited to a surety bond, pledge of assets or bank letter of credit covering the value of the excess, is approved by the State Fire Marshal.

- (b) The certificate of insurance shall provide all of the following:

- (1) That the insurer will not cancel the insured's coverage without 15 days prior written notice to the State Fire Marshal.

- (2) That the duly licensed pyrotechnic operator required by law to supervise and discharge the public display, acting either as an employee of the insured or as an independent contractor and the State of California, its officers, agents, employees, and servants are included as additional insureds, but only insofar as any operations under this chapter are concerned.

- (3) That the State shall not be responsible for any premium or assessments on the policy.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Sections 12552, 12610

**993.1. Reports.** General public display and special public display licensees shall report to the State Fire Marshal prior to date of each display all public displays of fireworks contemplated under their license. Licensees must report to the State Fire Marshal at least 72 hours prior to each display on state-owned or state-occupied property. Applicants for limited public display licenses shall report at the time of applying for their license. The report shall contain the information set forth in Section

982.

**EXCEPTION:** A general public display licensee conducting special effects activities for motion picture, television, and theatrical productions need not comply with any of the above reporting requirements.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

#### **997. Pyrotechnic Operators, Basic Commercial, Responsibilities.**

(a) No Basic Commercial public display permit shall be granted unless there is a licensed basic commercial pyrotechnic operator and at least one additional experienced person present. Pyrotechnic Operators, Basic Commercial, shall:

(1) Be responsible for and have control over on-site unloading, storing, and security of all fireworks;

(2) Be responsible for placement of mortars, set pieces, and all other fireworks on-site as approved by the authority having jurisdiction. No fireworks shall be discharged over areas occupied by spectators;

(3) Insure that no person under the age of 18 is in the firing or fireworks storage sites;

(4) Be in possession of a current basic commercial license at the time of display; and

(5) Be responsible for and have control over the safe return of all unfired fireworks, misfires and duds.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

#### **999. Mortars, Aerial Shells.**

(a) General.

(1) Electric firing shall be required for all mortars eight inches (8") or greater

in diameter.

(2) Multiple-break shells that include a salute as one of the breaks shall be fired in HDPE mortars only.

**(b) Steel Mortars.**

(1) Steel Mortars shall be constructed of commercially manufactured, first quality electric resistance weld (ERW) or drawn over mandrel (DOM) steel tubing conforming to ASTM Standard A135-83, which is incorporated by reference. Mortars constructed of cast iron, other fragmenting types of steel, and all other types of metal are prohibited. Salutes shall not be fired from metallic mortars.

(2) Steel mortars shall have a base plate the same thickness of the mortar wall, welded continuously around its perimeter.

(3) The inside length of steel mortars shall meet the minimum specifications set forth below:

Shell Size	Inside Length
1.99 inches or less	8 inches
2 inches	13 inches
2 1/2 inches	13 inches
3 inches	15 inches
4 inches	20 inches
5 inches	25 inches
6 inches	30 inches
7 inches	32 inches
8 inches	32 inches
10 inches	40 inches
12 inches	40 inches
16 inches	64 inches
24 inches	96 inches

(4) Mortars shall not have any visible cracks in the body of the tube, nor any cracks or voids in the weld around the base plug. Mortars shall not be dented or distorted beyond the point that such distortion interferes with the smooth and unimpeded travel of the shell throughout the entire length of the

mortar.

**(c) Paper Mortars.**

(1) Reusable paper mortars shall be of spiral or convolute wound kraft paper or chipboard, and shall meet the minimum specifications set forth below.

<b>Shell Size</b>	<b>Wall Thickness</b>	<b>Inside Length</b>	<b>Base Plugs*</b>
Less than 2"	1/8 inch	8 inches	1 inch
2 inches	1/4 inch	13 inches	2 inches
2 1/2 inches	3/8 inch	13 inches	3 inches
3 inches	3/8 inch	15 inches	3 inches
4 inches	1/2 inch	20 inches	3 inches
5 inches	1/2 inch	25 inches	4 inches
6 inches	1/2 inch	30 inches	4 inches
7 inches	3/4 inch	32 inches	4 inches
8 inches	3/4 inch	32 inches	4 inches

\* Sizes for base plugs are nominal.

(2) Base plugs for paper mortars shall be wooden and securely glued, as well as nailed, screwed or bolted to the base of the mortar. Base plugs shall be discarded and replaced when damaged. Minor cracks and checks are acceptable.

(3) Multiple-break shells shall not be fired from paper mortars.

**(d) HDPE Mortars.**

(1) High Density Polyethylene (HDPE) mortars shall meet the minimum specifications set forth below:

<b>Shell Size</b>	<b>Wall Thickness</b>	<b>Inside Length</b>	<b>Base Plugs*</b>
Less than 2"	1/8 inch	10 inches	1 inch
<b>Shell Size</b>	<b>Wall Thickness</b>	<b>Inside Length</b>	<b>Base Plugs*</b>



2 inches	1/4 inch	13 inches	2 inches
2 1/2 inches	1/4 inch	13 inches	3 inches
3 inches	1/4 inch	15 inches	3 inches
4 inches	1/4 inch	20 inches	3 inches
5 inches	1/4 inch	25 inches	4 inches
6 inches	3/8 inch	30 inches	4 inches
7 inches	3/8 inch	32 inches	4 inches
8 inches	3/8 inch	32 inches	6 inches

\* Base plug sizes are nominal.

HDPE Mortars shall not be reloaded for a period of at least one (1) hour after use. All base plugs for HDPE mortars shall be wooden, and securely glued, as well as nailed, screwed, or bolted to the base of the mortar. Base plugs shall be discarded and replaced when damaged. Minor cracks and checks are acceptable.

**(e) Other Materials.**

(1) Recognizing that new materials for the construction of mortars may be developed, such materials may be used when specifically approved by the State Fire Marshal. Persons wishing to use material not specifically covered in this section shall submit the material in an amount sufficient for testing to the State Fire Marshal for determination of its safety and its inclusion in this section.

**Note:** For illustrations of typical mortar racks, troughs and drums, see Diagrams A, B, and C following Section 1002.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

**1001. Setting Mortars.**

(a) Metallic, re-usable paper and HDPE mortars shall be securely buried to a minimum of 2/3 of their minimum legal length in earth or in drums or troughs filled with moist earth or sand essentially free of debris.

(b) Mortars other than metallic mortars may be placed in wooden finale racks.

(c) Planking below mortars shall be required when the base of the mortar, trough, or drum is not on a stable and level surface.

(d) Mortars in non-electrically-fired shows shall meet all of the following requirements:

(1) Mortars up to five inches in diameter and buried in earth or placed in troughs or drums shall be spaced a minimum of 3 inches apart or from the sides of the drum or trough.

(2) Mortars six inches or larger in diameter and buried in earth or placed in troughs or drums shall be spaced a minimum of 5 inches apart or from the sides of the drum or trough. When a mortar requiring 5 inches of space is placed adjacent to a mortar requiring only 3 inches of spacing, the larger spacing shall apply.

(e) Mortars in electrically-fired shows shall meet all of the following requirements:

(1) All mortars buried in earth or placed in drums and troughs shall be nominally spaced 2 inches apart or from the sides of the drum or trough.

(2) All technicians shall be positioned a minimum of 100 feet from any mortar and positioned so as to be protected from the direct line of fire.

(3) No one shall be allowed to enter the firing area during the firing of the display.

(f) Mortars shall be set in a stable and secure manner so that accidental impact and shell discharge will not change the trajectory of adjacent unfired shells.

Note: For illustrations of typical mortar racks, troughs and drums, see Diagrams A, B, and C following Section 1002.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

#### **1002. Design Specifications for Mortar Racks, Troughs, Drums, and Ready Boxes.**

(a) Mortar racks shall be limited to a maximum of 10 tubes per unit. The base and ends of the rack shall be nominal 2 inch thick lumber. The inside width shall be equal to the outside diameter of the mortar tube. Each mortar tube shall be separated by horizontal or vertical blocks nominally 2 inches thick and 4 inches wide. Side braces for mortar racks of 3 inch size mortars and up shall be 1 inch x 6 inch nominal lumber or 1/2 inch x 4 inch plywood securely

fastened by nails, screws, or attached with construction grade staples along the top and bottom of the rack. A diagonal side brace must be employed on all mortar racks with more than 5 mortar tubes. Mortar racks shall not incorporate steel brackets or other metallic parts in their construction with the exception of nails, screws, or construction-grade staples. Metallic braces shall not be fastened to mortar racks at the firing site.

(b) Troughs shall not be more than 8 feet in length. Troughs may be placed in a continuous row provided they are stable and secure. The sides, bottom and ends of troughs shall be minimum 3/4 inch plywood or nominal 2 inch lumber, except in cases where the surface at the bottom of the trough is sufficiently stable to support the firing of the mortar, no bottom shall be required. Troughs shall be secured by minimum 3/8 inch through bolts, rods or angle iron "U" brackets at each end and center to prevent bulging.

(c) Drums shall be constructed of steel, aluminum or plastic.

(d) Ready boxes shall be constructed of wood not less than 1/2 inch thickness or 3/8 inch plywood, chipboard or presswood. Ready boxes shall not be equipped with any type of hold open device.

**Note:** For illustrations of typical mortar racks, troughs and drums, see Diagrams A, B, and C immediately following this section.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552,

27 Code of Federal Regulations, Section 55.200

**DIAGRAM A,  
DIAGRAM OF A TYPICAL RACK**

**DIAGRAM B,  
DIAGRAM OF A TYPICAL TROUGH SETTING**

**DIAGRAM C,  
DIAGRAM OF A TYPICAL DRUM SETTING**

### **1003. Operation of Display.**

#### **(a) General.**

(1) All fireworks at a display site shall be stored in a place and manner secure from fire, accidental discharge, and theft. All storage shall be approved by the authority having jurisdiction.

(2) Shells shall be sized for proper fit and for damaged lift charge bags, lead fuse tears, tears in the piping of the quick match leaders, and missing safety caps.

(3) Safety caps protecting the fuse shall not be removed until firing or electric hookup.

#### **(b) Ready Boxes.**

(1) Shells used for reloading shall be placed in ready boxes prior to the start of the display.

(2) Ready boxes shall not be located less than 25 feet upwind from the nearest mortar prior to any firings.

(3) Ready boxes shall be divided into separate compartments for each shell size.

(4) When containing shells, ready boxes shall be set with the bottom facing the mortars with the front elevated, or set on the bottom with the hinges towards the mortar, providing the lid cannot be opened fully.

(5) Once in place, the ready box shall be covered with a flame-resistive water-repellant canvas cover.

#### **(c) Loading Mortars.**

(1) At no time shall any person place any part of their body over the mortar muzzle during loading or firing.

(2) Mortars shall be cleaned of debris or burning material prior to loading, and prior to reloading, as necessary.

(3) Mortar racks may be reloaded with non-chained single-break shells when there is no longer any burning material in the racks.

(4) Finale racks shall have tape placed over the mortar muzzles when loaded with finale chained shells.

(5) Salutes and detonating shells shall not be fired from steel mortars.

(6) Multiple-break shells that include a salute as one of the breaks shall be fired from HDPE mortars only.

**(d) Firing.**

(1) All firing shall be done upon order or signal of the licensed pyrotechnic operator controlling the display.

(2) Electric firing, if utilized, shall comply with all of the requirements of Article 13.5 of this chapter.

(3) Upon conclusion of firing, no unauthorized person shall be permitted access to the firing area until the licensed pyrotechnic operator has determined the area to be safe and secure.

(4) Electric firing shall be required for all mortars eight inches (8") or greater in diameter.

**(e) Ground Effects.**

(1) Set pieces, wheels, and mechanical devices shall be braced, guyed and securely attached or set as required to prevent displacement.

(2) Low level Roman Candles, multiple batteries and projectiles shall be securely set to prevent accidental displacement.

**(f) Duds.**

(1) The licensed pyrotechnic operator shall account for and retrieve all duds immediately following the display.



(2) The entire firing range shall be inspected immediately following the display to locate any duds. Any shells found shall be immediately doused with water before handling. The shell shall then be placed in a separate container filled halfway with water.

**(g) Misfires.**

(1) When a shell misfires, and the fuse has burned, but the lift charge has not functioned, the mortar shall be identified and marked, and left undisturbed for a minimum of 5 minutes, then filled halfway with water.

(2) When the shell misfires due to electric malfunction, and the fuse has not yet burned, the shell shall be removed and stored pursuant to the permit.

(3) When the display is concluded, the misfired shell shall be placed in a safe area pursuant to the permit.

(h) Unfired shells, including duds and misfires, must be removed immediately following the display and returned directly to the wholesaler/manufacturer unless provision has been made for storage and/or destruction with the authority having jurisdiction.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

**1004. Safety Tools and Equipment.**

(a) Tools required at the display site shall be at a minimum a shovel, a serviceable pressurized water fire extinguisher, a bucket or other container to soak duds, and any other equipment as required by the authority having jurisdiction.

(b) Any person manually discharging aerial shells shall wear at a minimum a hard hat, eye protection, long sleeved shirt, gloves, long pants, and shoes or boots, and have available ear protection, as required by the authority having jurisdiction.

Authority: Health and Safety Code Section 12552

**1005. Post Display.**

**(a) Reports.**

(1) Within ten (10) working days following any public display, the licensed pyrotechnician in charge of the display shall submit a complete, accurate and factual written report directly to the State Fire Marshal, covering:

(A) A brief report of any duds or misfires including manufacturer's name, type and size.

(B) A brief account of the cause of injury to any person from fireworks and such person's name and address.

(C) A brief account of any fires caused by fireworks.

(D) Any violations of the Health and Safety Code or of these regulations relating to public display fireworks.

(E) The names of all licensed and unlicensed assistants.

**EXCEPTION:** A general public display licensee conducting special effects activities for motion picture, television, and theatrical productions need not comply with the requirements of subsections (A) and (E).

**(b) Notification.** Verbal reports are required within 24 hours to the State Fire Marshal when any of the following occur:

(1) Fire requiring emergency action or response as a result of the firing;  
**or**

(2) Injury or death to the public or crew. Within ten (10) working days following an incident giving rise to a verbal report, the licensed pyrotechnician in charge of the activity shall submit a complete, accurate and factual report directly to the State Fire Marshal on the event.

(c) **Unfired Shells.** Unfired shells shall either be removed following the display and returned directly to the wholesaler or supplier or stored in a manner

approved by the authority having jurisdiction until such time as the shells can be transported directly to the wholesaler or supplier.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

## **Article 16. Experimental Rockets/Unlimited**

**1010. General.** This article applies to all rockets except approved model rockets as defined in Article 17 and experimental high power rockets and experimental high power rocket motors as defined in Article 2.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

### **1011. Test Areas.**

(a) Experimental rockets unlimited shall not be launched within this State from any site other than test areas approved for such purpose by the fire authority having jurisdiction.

(b) These test areas shall meet the following minimum requirements:

(1) Test areas shall consist of a launching site and an impact range.

(2) The launching site is that area immediately surrounding the launching devices, including positions to protect all personnel.

(3) The impact range is that area over which rockets may travel by design or accident and upon which they fall. Its length should be not less than the maximum calculated ideal ballistic range of any rocket to be fired from its launching site and extends as the radius of a circular section 90° from the launching site apex into the prevailing wind.

(c) Test areas should include no dwellings or structures other than those

provided for operating and non-operating personnel protection and loading rockets.

(d) Operating personnel protection shall consist of a bunker, blockhouse or similar protection designed to withstand shrapnel and mass impact equal to the potential created by the heaviest rocket intended to be fired, and falling from its zenith or exploding at any point. This bunker when located not less than 50 feet distant from the launching device shall afford minimum protection equal to a 2 foot wide slit trench not less than 5 feet deep and parapet observation ports with protection equal to a double thickness of sand bags. Overhead protection should consist of substantial structural materials, and these materials shall be covered to afford protection equivalent to that of a double layer of filled sandbags. Non-operating personnel minimum protection when located not less than 250 feet distant from the launching device shall consist of construction at least equal to the slit trench shelter described above.

(e) Rocket loading facilities shall be housed in a lightly constructed and covered structure located not less than 100 feet distant from any other structure including any or launching device. Within this State, all fuel or propellant compounding or loading of experimental rockets unlimited shall be performed by licensed pyrotechnic operators or by experienced persons directly supervised by these pyrotechnic operators.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

**1012. Rocket Launchers.** Rocket launchers shall have a minimum length sufficient to insure stabilization to any rocket fired from them and shall be constructed of appropriate material such as metal or rigid flame-resistant plastic and designed for the specific intended purpose and use. Special protection shall be provided for persons setting and arming all rockets. The use of any two rail, "V" or "U" trough launcher, which depends solely on gravity to control the rocket during launching is prohibited.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

**1013. Setting Rocket Launchers.** All adjustments and alignments of the rocket launcher and connections shall be completed before the rocket is armed. Final rocket

launcher adjustments shall be checked by the licensed pyrotechnic operator in charge.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

**1014. Firing Procedure.** A definite ordered firing procedure shall be established by the licensed pyrotechnic operator in charge. Both visible and audible signals shall be used to alert all persons in the test area. Any launch or firing code used shall be reduced to writing and posted conspicuously in the test area.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

**1015. Launching Rockets.**

(a) Rockets may not be armed or launched except by an experienced pyrotechnic operator, who, if he or she is not licensed, shall be directly responsible to the licensed pyrotechnic operator in charge. The actual arming operation shall be accomplished by a competent person. During all arming operations all personnel shall take shelter when launching, excepting only the individual arming the rocket and his or her necessary assistants. All internal self-contained firing circuits (within the rocket) including, but not by way of limitation, multiple stage ignition, parachute releases, bursting charges, etc., shall be provided with an arming and disarming device operable remotely from without the assembled rocket in the launching position.

(b) The firing circuit shall be shunted at both the control center and the launching site by the pyrotechnic operator assigned to arm the rocket. Both shunts shall be in place and he or she shall test them to insure that the firing circuit is effectively short-circuited, before the rocket is set in the launching position.

(c) The single special key, which removes the launching site shunt from the firing circuit, shall be the sole means for completing the firing circuit at the control center. The arming operator shall retain the shunt key in his or her personal possession from the time the circuit is initially shunted until the arming operations are completed and he or she removes the last shunt in the control center and establishes a ready firing circuit.

(d) No other means or device than a remotely controlled electric circuit of an

approved design may be used to launch single stage rockets or the first stage of multistage rockets.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

### **Article 17. Model Rockets**

**1020. General.** Nothing in this article is intended to regulate the sale or the construction of model rockets, provided that such model rockets are not equipped with a model rocket motor.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Sections 12552, 12560, 12565

#### **1021. Classification and Labeling.**

(a) All types of model rocket motors shall be submitted to the State Fire Marshal by a licensed model rocket motor manufacturer, importer/exporter, or wholesaler for classification. A copy of a certificate of classification indicating the item has been classified as a model rocket motor by a laboratory approved by the Department of Transportation shall accompany the request for classification by the State Fire Marshal. Three samples of each motor type shall be submitted to the State Fire Marshal for classification. Standards for the classification for model rocket motors shall conform to the National Fire Protection Association (N.F.P.A.) 1122 (1987), Code for Unmanned Rockets, Sections 3-1.1, 3-1.2, 3-1.3, 3-1.4, 3-1.5, 3-1.6, 3-1.7, 3-1.8, 3-1.9, 3-1.10.

(b) Individual engines shall bear the California State Fire Marshal seal and the registration number of the licensee.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

#### **1022. Model Rocket Standards and Use.**

(a) Model rocket standards and use shall comply with NFPA 1122, the Code for Unmanned Rockets, Chapter 3, Sections 3-1.1 through 3-1.10, Chapter 4, Chapter 5, Chapter 6, and Appendix A-2-(1987), which is incorporated by reference herein except for Appendices A-2.3 and A-2.4.

Authority: Health and Safety Code Section 12552  
Reference: Health and Safety Code Section 12552

**1023. Storage and Sale.** No model rocket motors shall be stored, sold or offered for sale at retail unless such model rocket motors have been classified by the California State Fire Marshal.

Authority: Health and Safety Code Section 12552  
Reference: Health and Safety Code Section 12552

**1024 Restrictions.** The provisions of this article shall not be used to establish the authority to possess, launch or use experimental unlimited or experimental/high powered rocket motors.

Authority: Health and Safety Code Section 12552  
Reference: Health and Safety Code Section 12552

**1025. Authorization.**

(a) No model rocket user shall launch any model rocket from any site without first securing authorization from the authority having jurisdiction. The authority having jurisdiction may require notification each time that model rockets are to be launched.

(b) It shall be the responsibility of the model rocket user to secure permission of the owner of private lands when such land is intended to be used to launch model rockets.

Authority: Health and Safety Code Section 12552  
Reference: Health and Safety Code Section 12552

**1026. Revocation of Permits and Authorized Use of Launching Area.** The authority having jurisdiction may immediately revoke a permit to sell model rocket motors at retail if it is found that those persons granted a permit have violated these regulations. The authority having jurisdiction may immediately revoke its authorization to use a firing area if it is found that an undue hazard exists, including, but not limited

to, fire safety hazards or life safety hazards.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

#### **1027. Minimum Age.**

(a) No model rocket motors shall be sold, given, or delivered to any person under 18 years of age.

##### **EXCEPTIONS:**

(1) Model rocket motors bearing the standardized coding 1/4A, 1/2A, A, B, C, and D may be sold, given, or delivered to any person 14 years of age or older.

(2) Persons who are 12 years of age or older and who are taking part in a model rocket education program may receive model rocket motors and launch approved model rockets motors when under the direct supervision and control of a person 18 years of age or older. Model rocket motors must be obtained only from the adult in charge of the launching. Approved model rocket motors for this exception shall bear the motor coding 1/4A, 1/2A, A, B, C or D.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

**1028. Supervision.** The permittee shall be responsible for the safety of all spectators and other persons connected with the launching of model rockets.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

### **Article 18. Experimental High Power Rockets and Motors**

**1030. General.** This article is intended to regulate the sale, storage, construction and use of experimental high power rocket motors and experimental high power rockets.



Authority: Health and Safety Code Section 12552  
Reference: Health and Safety Code Section 12552

#### **1031. Classification and Labeling.**

- (a) All types of experimental high power rocket motors shall be submitted by a licensed experimental high power rocket motor manufacturer, importer/exporter, or wholesaler to the State Fire Marshal for classification.
- (b) All motors shall bear the State Fire Marshal seal and the registration number of the licensee. Classified motors contained within packages may have the State Fire Marshal seal and registration number on the package, provided that such packages are sealed.

Authority: Health and Safety Code Section 12552  
Reference: Health and Safety Code Section 12552

#### **1032. Experimental High Power Rocket Motor Standards and Use.**

- (a) Experimental high power rocket motor design and construction standards shall comply with all of the following:
  - (1) The maximum total impulse per rocket motor shall not exceed 10,240 Newton-seconds (2302.2 lb.-seconds).
  - (2) When more than one rocket motor is utilized, the combined total impulse shall not exceed 20,480 Newton-seconds (4604.4 lb.-seconds).
- (b) If an experimental high power rocket is equipped with an experimental high power rocket motor, then the rocket shall:
  - (1) be constructed of paper, plastic, rubber, aluminum or wood except that minor components such as screw eyes or motor mounts may be of other light-gauge metals; and
  - (2) include an effective means or device for returning the rocket safely to the ground without causing personal injury or property damage; and
  - (3) The rocket shall not contain any type of explosive or pyrotechnic warhead of any type.

(c) An experimental high power rocket shall not be used as a weapon.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

**1033. License Required.** No person shall possess, receive, transport, store, or launch any experimental high power rocket motor without first securing a valid license as a Pyrotechnic Operator--Rockets First, Second, or Third Class from the State Fire Marshal.

No person shall sell an experimental high power rocket motor to any person unless the seller possesses a valid license as a wholesaler or retailer under this chapter.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

**1034. Local Permit Required--Seller.** No person shall sell an experimental high power rocket motor without first securing a permit from the authority having jurisdiction. This permit shall be in addition to, not in lieu of, a valid license issued by the State Fire Marshal for the sale of these motors. This permit shall be deemed separate from a local permit allowing the launching of rockets utilizing such motors.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

**1035. Local Permit Required--Launch.**

(a) No experimental high power rocket motor user shall launch any experimental high power rocket motor from any site without first securing a permit from the authority having jurisdiction.

(b) The authority having jurisdiction may require notification by the permittee each time an experimental high power rocket motor is to be launched. It shall be the responsibility of the experimental high power rocket motor user to also secure the permission of the owner of private land when such land is intended to be used as a launch site.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

**1036. Launching Facilities.**

(a) Experimental high power rocket motors shall be launched from platforms meeting the following specifications:

(1) A launch guide ( tube, rod, tower or other suitable device) shall be used to restrict the horizontal motion of the rocket until flight velocity sufficient to maintain stability during flight is achieved.

(2) A launch angle of not more than twenty degrees (20°) from the vertical shall be used.

(b) Rocket motor launching shall be by remote electrical means only, and under the supervision and control of an individual properly licensed in accordance with this chapter.

(c) Surface wind at the launch site shall not exceed twenty miles per hour (20 m.p.h.), and visibility above the launching area shall be at least five thousand feet (5,000 ft.).

(d) The recovery device wadding ejected from the rocket during the launch flight sequence, if used, shall be of flame retardant material meeting the standards of Title 19, California Code of Regulations, Chapter 8, Sections 1171 through 1355.

(e) Experimental high power rocket motors shall be launched only during daylight hours unless specifically approved by the authority having jurisdiction.

(f) All personnel, including those conducting the actual launching of the experimental high power rocket motor(s), shall maintain a clear radial distance from the launch platform during the countdown and launch, pursuant to the guidelines in Table 18A.

**TABLE 18A**  
**REQUIRED LAUNCH DISTANCES**

<b>TOTAL IMPULSE OF ROCKET</b> (in Newton Seconds)*	<b>RADIAL DISTANCE FROM LAUNCHER</b>
0--320	30 feet

320.01--1280	150 feet
1280.01--2560	200 feet
2560.01--5120	300 feet
5120.01-10240	500 feet
10241---20480	1000 feet

\*Rockets propelled by clusters of motors shall use the distance specified for the next higher impulse category.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

### **1037. Launch Site Standards.**

(a) The launch site shall consist of a launching area and a recovery area. The launching area shall consist of an area surrounding the launching devices a radial distance from the launching device as specified in Table 18A above. The recovery area shall consist of the launching area and the minimum area necessary to retrieve the rocket, based on the estimated altitude likely to be achieved by the rocket. These calculations shall take into account the weight of the rocket and the specific type of motor used (or combined total impulse). Table 18B shall be used to determine the minimum launch site dimensions for the various classes of experimental high power rockets.

(b) The launch site shall not be located in any grain field, dry grass, brush- or forest-covered lands.

(c) The launch site shall not contain any buildings or structures, unless specifically approved in advance by the authority having jurisdiction, and under no circumstances shall such buildings or structures be less than one thousand five hundred feet (1,500 ft.) from the launch site.

(d) The launch site shall not contain any high voltage electrical lines or major highways.

(e) The launch site shall not contain any natural or artificially constructed obstacle deemed by the authority having jurisdiction to pose a hazard during launching .

(f) The launching area shall be located as near as possible to the center of the launch site but in no case less than seven hundred fifty feet (750 ft.) from the boundary of the launch site.

(g) The launching area shall have appropriate barriers around it such that spectators will be restrained from encroaching upon it. These barriers may be of any type approved by the authority having jurisdiction.

Authority: Health and Safety Code Section 12552  
Reference: Health and Safety Code Section 12552

**TABLE 18B**  
**MINIMUM EXPERIMENTAL HIGH POWER**  
**ROCKET MOTOR LAUNCH SITE STANDARDS**

<b>Equivalent Motor Type</b>	<b>Max. Combined Total Impulse (N-Seconds)</b>	<b>Min. Launch Site Dimensions (feet)</b>
H	320	1,500
I	640	2,500
J	1,280	3,500
K	2,560	5,000
L	5,120	7,000
M	10,240	10,000
N	20,480	15,000

Authority: Health and Safety Code Section 12552  
Reference: Health and Safety Code Section 12552

**1038. Testing.** At locations approved by the authority having jurisdiction, experimental high power rocket motors may be ignited on the ground for the purpose of determining their performance. All of the following procedures shall be followed during the firing of these motors:

(a) The experimental high power rocket motor shall be affixed to a testing device or to an immovable structure in such a manner that the motor will not work itself

free during the testing or the experimentation process.

(b) The experimental high power rocket motor shall be ignited only by remotely operated electrical means fully under the control and supervision of the licensed pyrotechnic operator conducting the testing or experimentation.

(c) The exhaust path of the motor shall be cleared of all flammable objects prior to its firing.

(d) All persons, whether they are conducting, participating in or observing the testing or experiment, shall stand away from the motor, and particularly its exhaust path, at all times during the test or experiment.

(e) Under no circumstances shall testing or experimentation of experimental high power rocket motors be conducted indoors.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

**1039. Supervision and Responsibility.** the licensed pyrotechnic operator in charge of the launch site or test site shall supervise the arming of every experimental high power rocket motor, the launching of all motors, and the disposal of all unwanted or defective motors. The licensed pyrotechnic operator shall also be responsible for the safety of all spectators or observers and all other persons connected with the launching of experimental high power rocket motors.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

## **Article 19. Emergency Signaling Devices**

**1045. Fire Hazard.** Whenever the authority having jurisdiction declares that the use of an emergency signaling device would create a fire hazard, no emergency signaling device shall be used regardless of its indicated registration and labeling. This prohibition shall continue as long as the fire hazard condition exists in the specific area, as determined by the authority having jurisdiction.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Section 12552

**1046. License required.** Manufacturers of emergency signaling devices whose manufacturing operations take place in California must possess a valid fireworks manufacturing license from the State Fire Marshal to manufacture emergency signaling devices.

Authority: Health and Safety Code Section 12552

Reference: Health and Safety Code Sections 12526, 12552, 12571